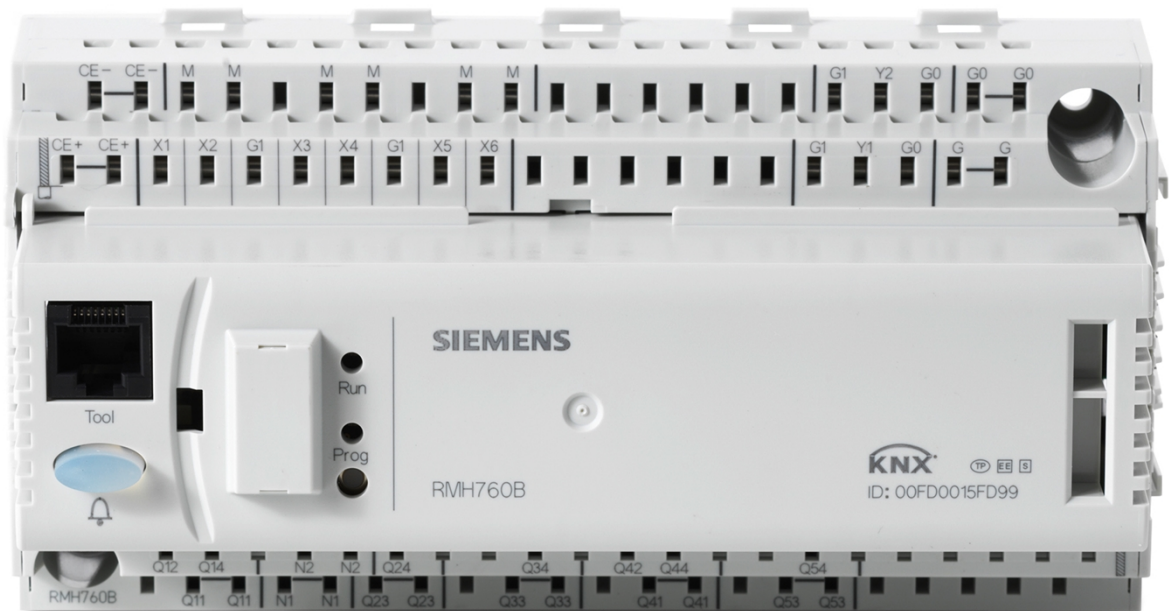


Heating, ventilation and air conditioning - primary control



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Heating, ventilation and air conditioning - primary control

Overview and selection tools

KNX - One system for all types of applications

Synco tool – support functions for quick commissioning

To facilitate commissioning, the Synco tool offers you a host of help functions and choices: Diagnostics including trending, for example, straightforward fault tracing thanks to access to all data points of all controllers, saving all settings on the PC, or printing commissioning reports.

Synco operating – efficient operation of plant with straightforward remote control

Thanks to the Synco web server, plant operation and monitoring can be effected from a PC or smartphone at any time and from any location. An alarm system delivers fault status or maintenance messages in due time, also via SMS or e-mail, if required. The app allows your customers operation from underway or from the sofa.

Simple concept for opening communication

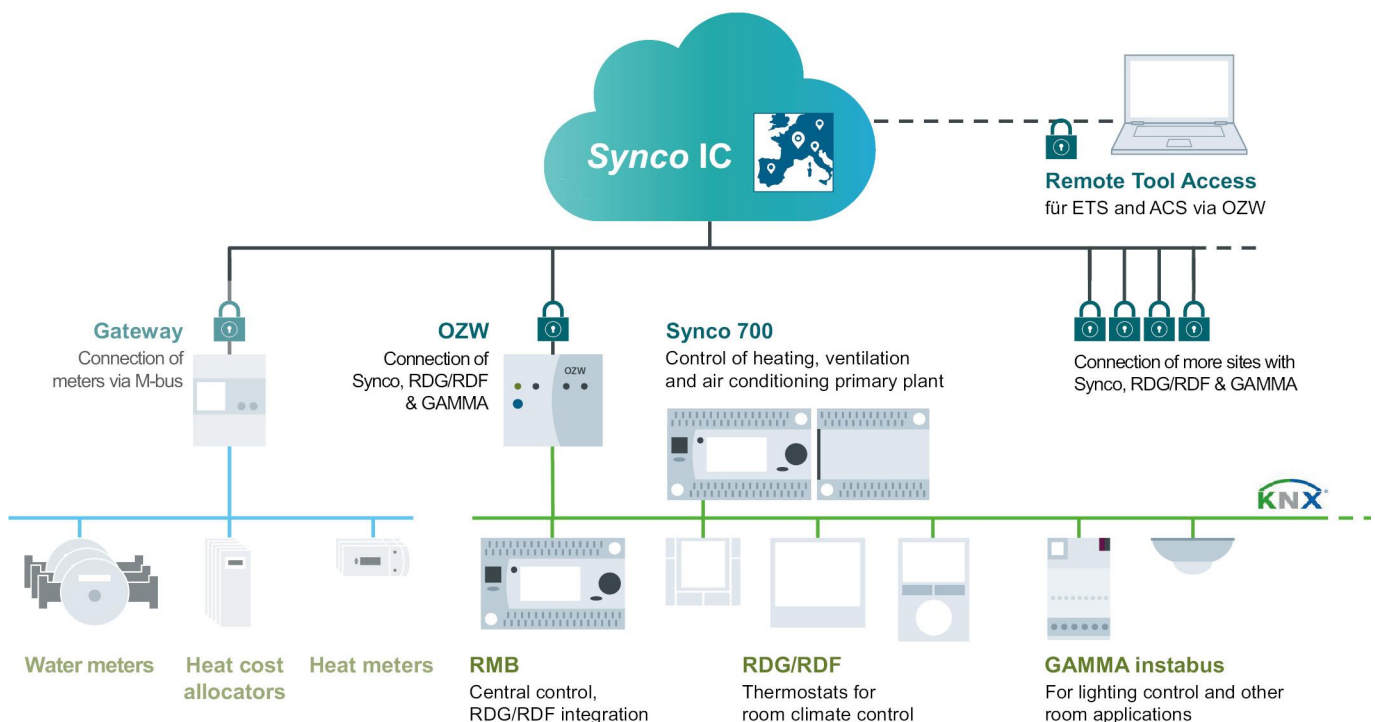
With Synco, defining and commissioning of communication is child's play: Simply inter-connect the units, activate the bus power supply on the controller and set the device address. All relevant settings can be made directly via local operation.

KNX Building Control - simply add more functionality with KNX

With KNX, the functionalities of the system can be significantly enlarged, for example with lighting or shading control. The GAMMA portfolio offers corresponding actuators, sensors and interfaces, for example DALI and BACnet. Commissioning of those extensions is done with ETS (Engineering Tool Software). For example, simultaneous control of the ventilation system and of lighting via the same presence detectors, is possible.

Synco IC - easy and secure remote access

Synco IC is a web-based remote access system. Just connect your web server with the internet, create your account on the www.siemens-syncoic.com and enter the key for your web server. Setting up a secure internet access to your plant is therefore child's play.



Product details communicating controllers Synco™

Type													
	RMB795B-1	RMH760B-1	RMK770-1	RMU..			RMS705B-1	RMZ..					
				710B-1	720B-1	730B-1		782B	783B	785	787	788	789
	Central control unit RMB795B for room controllers and room thermostats	Modular heating controller max. 3 heating circuit	Boiler sequence controller	Modular universal controller, 1 control loop	Modular universal controller, 2 control loops	Modular universal controller, 3 control loops	Switching and Monitoring Device	Heating circuit module 3UI, 3DO, 1AO	DHW module 4UI, 5DO, 1AO	Universal module, 8UI	Universal module, 4UI, 4DO	Universal module, 4UI, 2DO, 2AO	Universal module, 6UI, 2AO, 4DO
Operation	■ ¹⁾	■ ¹⁾	■ ¹⁾	■ ¹⁾	■ ¹⁾	■ ¹⁾	■ ¹⁾						
KNX communication	■	■	■	■	■	■	■						
7-day time switch and holiday/special day programm	■	■	■	■	■	■	■						
Supervision	■	■	■	■	■	■	■						
Logic functions	■	■	■	■	■	■	■						
Outputs													
Step switch		■	■	■	■	■	■						
Relay	4	5	7	2	4	6	6	3	5		4	2	4
3-position		1	3					1	1				2
DC 0...10 V	2	2	2	2	3	4	4	1	1			2	2
Universal inputs													
T1	■	■	■	■	■	■	■			■	■	■	■
Pt1000	■	■	■	■	■	■	■	■	■	■	■	■	■
DC 0...10 V	■	■	■	■	■	■	■	■	■	■	■	■	■
Digital	■	■	■	■	■	■	■	■	■	■	■	■	■
LG-Ni 1000	■	■	■	■	■	■	■	■	■	■	■	■	■
Number of universal inputs	6	6	8	6	8	8	8	3	4	8	4	4	6
Controlled variable													
Universal	■			■	■	■	■						
Temperatur °C	■	■	■	■	■	■	■						
Control mode													
PID		■	■	■	■	■	■						
P/PI		■	■	■	■	■	■						
Control loops													
Cascade		■	■	■	■	■							
Number		6	7	1	2	3	3						

■¹⁾ Optional operation:
RMZ790: Plug-in operator unit
RMZ791: Detached operator unit
RMZ792: Bus operator unit

AO Analog output
DO Digital output
UI Universal inputs

RMB795B-1



Central control unit for room controllers and room thermostats

- Central control unit with integrated control and supervisory functions for individual room control with RXB room controllers and room thermostats RDG/RDF
- Central collection of heating and cooling demands from any KNX room controllers
- Control of any HVAC primary controllers in dependence on the received and calculated heating/cooling demands
- Individual time programs for room groups
- Preselected operating modes and setpoints, minimum / maximum temperature supervision and supervision of RXB room controllers and room thermostats RDG/RDF
- Trend and fault reporting functions for the input variables temperature, relative / absolute humidity, pressure / differential pressure, volumetric air flow, indoor air quality, etc.
- Heating / cooling changeover function for operation with 2-pipe systems
- Flexible configuration
- Clear-text operation with separate operator unit (plug-in type or detached)
- Integrated KNX bus communication
- No commissioning tool required

The RMB795B-1 supports the languages: English, German, French, Italian, Spanish, Portuguese, Dutch, Danish, Finnish, Norwegian, Swedish, Polish, Czech, Hungarian, Russian, Slovak, Bulgarian, Greek, Romanian, Slovenian, Serbian, Croatian, Turkish, Chinese.

Extension modules complement the central control unit and offer extra functions. They are attached to the controller via plug-in connectors. The extension modules do not operate autonomously. The operation of the device from commissioning to enduser operation can be done via the operator unit.

Available extension modules:

- 1 universal module RMZ785
- 2 universal modules RMZ787

A total of 3 extension modules can simultaneously be used with the central control unit.

Available operator units:

- Plug-in type operator unit RMZ790
- Detached operator unit RMZ791
- Bus operator unit RMZ792

Data sheet	N3122
Operating voltage	AC 24 V
Frequency	50/60 Hz
Power consumption	12 VA
Communication	KNX (KNX TP1)
Analog outputs, number	2
Analog output, signal	DC 0...10 V
Analog output, current	Max. 1 mA
Digital outputs, number	4
Universal inputs, number	6
Universal input, signal	2 x LG-Ni1000 DC 0...10 V Potential-free digital status contact LG-Ni1000 Pt1000 T1 (PTC)
Relay outputs, number	4
Relay output, switching voltage	AC 19...250 V
Relay output, switching current	4 (3) A
Mounting	DIN rail
Degree of protection	IP20
Dimensions (W x H x D)	173 x 90 x 80 mm
Warranty	24 Months

Stock no.	Product no.
S55370-C162	RMB795B-1

Universal controller

RMU7..0B-1



- Universal controllers with integrated control and supervisory functions
- Suited for the controlled variables temperature, relative / absolute humidity, pressure / differential, air flow rate, indoor air quality, etc.
- Autonomous sequence controllers with P, PI or PID mode
- Tested, predefined applications (refer to Application Catalog)
- Flexible configuration
- Clear-text operation with separate operator unit (plug-in type or detached)
- Integrated KNX bus communication
- No commissioning tool required

The RMU7..0B-1 supports the languages: English, German, French, Italian, Spanish, Portuguese, Dutch, Danish, Finnish, Norwegian, Swedish, Polish, Czech, Hungarian, Russian, Slovak, Bulgarian, Greek, Romanian, Slovenian, Serbian, Croatian, Turkish, Chinese.

Extension modules complement the universal controller and offer extra functions. They are attached to the controller via plug-in connectors. The extension modules do not operate autonomously. The operation of the device from commissioning to enduser operation can be done via the operator unit.

Available extension modules:

- 1 universal module RMZ785
- 2 universal modules RMZ787
- 2 universal modules RMZ788

A total of 4 extension modules can simultaneously be used with the universal controller.

Available operator units:

- Plug-in type operator unit RMZ790
- Detached operator unit RMZ791
- Bus operating unit RMZ792

Data sheet	N3150
Operating voltage	AC 24 V
Frequency	50/60 Hz
Power consumption	12 VA
Communication	KNX (KNX TP1)
Analog output, signal	DC 0...10 V
Analog output, current	Max. 1 mA
Universal input, signal	LG-Ni1000
	T1 (PTC)
	Pt1000
	0...1000 Ohm
	1000...1175 Ohm
	DC 0...10 V
	Digital pulse contact
	Potential-free digital status contact
	2 x LG-Ni1000
Relay output, switching voltage	AC 19...250 V
Relay output, switching current	4 (3) A
Degree of protection	IP20
Dimensions (W x H x D)	173 x 90 x 80 mm

Range overview RMU7..0B..

Analog outputs, number	Universal-inputs, number	Relay outputs, number	Control loops, number	Stock no.	Product no.
2	6	2	1	BPZ:RMU710B-1	RMU710B-1
3	8	4	2	BPZ:RMU720B-1	RMU720B-1
4	8	6	3	BPZ:RMU730B-1	RMU730B-1

Heating, ventilation and air conditioning - primary control

Communicating controllers - Synco™ 700

Software, web and remote access

OCI702



USB - KNX Service interface

- The service interface consists of:
- OCI702 service interface
 - USB 2.0 cable (Type A / B)
 - KNX service cable for Synco™ controllers (RJ45 / RJ45)
 - KNX service cable for Desigo™ TRA (RJ45 / jack plug 2.5 mm)
 - KNX service cable (RJ45 / KNX bus terminal)
- With the respective PC software, the interfaces allows to commission and service devices with KNX communication, e.g. from the following ranges:
- Synco™ 700 controllers and room devices
 - KNX room thermostats RDF..., RDG..
 - Individual room controllers RXB..
 - Synco™ living central apartment units QAX9...
 - Desigo TRA
 - GAMMA devices

Data sheet	A6V10438951
Degree of protection	IP20
Warranty	24 Months

	Stock no.	Product no.
	S55800-Y101	OCI702

Web server for Synco devices

OZW772..

Web server OZW772 allows for remote plant control and monitoring via the web.

- Operate web browser via PC/laptop and Smartphone
- Operate ACS (PC/laptop with ACS plant operating software)
- Connections: USB and Ethernet
- Display fault messages in the web browser
- Send fault messages to a maximum of 4 e-mail recipients
- Periodically send system reports to e-mail recipients
- Visualize the plants in the web browser based on standard plant diagrams and customized plant web pages
- Acquire and display consumption data
- Send consumption data file to 2 email recipients
- Function "Energy indicator" to monitor data points for energy-related limit values, or "Green limits"
- Web services for external applications via Web API (Web Application Programming Interface)
- Encrypted with https and TLS for e-mails
- Record of trends, display and dispatch to 2 e-mail recipients
- Integration up to 237 S-Mode data points of KNX devices (not OZW772.01)
- Direct commissioning with web browser or ACS service tool
- Easy and secure remote access and plant overview with Synco IC Remote Access - a web-based service for secure remote access (www.siemens-syncoic.com)



Internet portal Synco IC offers simple and secure access to your plants

- Simple and fast set up of access via the Internet (fixed net- or mobile router)
- The portal provides additional functions:
 - Manage one or multiple plants
 - Central user management
 - Display of plant overview, state of Energy indicators and alarms
 - Send alarm notifications per e-mail
 - Secured communications through encryption (https)

Web servers OZW772.01, OZW772.04, OZW772.16, OZW772.250 can connect 1, 4, 16, or 250 KNX devices from the product ranges Synco 700, Synco RXB, and RDG/RDF room thermostats, and the QAX Synco living central apartment units.

Data sheet	N5701
Operating voltage	Power pack: AC 230 V Web server: DC 24 V
Communication	KNX TP (twisted pair) Ethernet, RJ45 plug socket (shielded) USB V2.0
Mounting	On DIN rails With Screws
Degree of protection	IP30
Dimensions (W x H x D)	87.5 x 90 x 40 mm

Range overview OZW772..

Product Title	Stock no.	Product no.
Web server for 1 Synco device	BPZ:OZW772.01	OZW772.01
Web server for 4 Synco devices	BPZ:OZW772.04	OZW772.04
Web server for 16 Synco devices	BPZ:OZW772.16	OZW772.16
Web server for 250 Synco devices	BPZ:OZW772.250	OZW772.250

